

## WHAT IS CLAIMED IS:

1. A translatory actuator unit comprising:
  - a translatory actuator module that moves an object
  - 5 straightly;
  - a force sensor that detects a load applied to the translatory actuator module; and
  - a servo control module that controls a speed, a position and/or output power of the translatory actuator
  - 10 module,
- wherein the translatory actuator module, the force sensor and the servo control module are integrally configured,
- the servo control module has
- 15 two-way network means for receiving a control command concerning the speed, the position and/or the output power from a network, and transmitting information of the speed, the position and/or the output power to the network,
- control means for controlling the speed, the position
- 20 and/or the output power, and
- self-diagnosis means for confirming safety and detecting an abnormal state based on detected information of the speed, the position, the load, and/or an electric current of the translatory actuator module.

25

2. The translatory actuator unit according to claim 1,

the translatory actuator module comprising:

5 a driving motor;  
a mechanism for converting rotational movement of the driving motor into translatory movement of the translatory actuator module; and

an encoder that detects a rotational speed and/or a rotational angle of the driving motor.

3. The translatory actuator unit according to claim 1,  
10 wherein the force sensor comprises an elastic supporting member that elastically supports the translatory actuator module at an opposite side to the object, and a displacement detector that detects displacement of the elastic supporting member.

15

4. The translatory actuator unit according to claim 1,  
wherein the servo control module comprises:

20 a communication unit connectable to the network; a memory device that stores the control command from the network and stores an operation program;  
a microprocessor that controls the translatory actuator module based on the operation program, confirms safety and detects an abnormal state based on the detected information of the speed, the position, the load, and/or the 25 electric current;

an interface that converts a signal communicated

between the microprocessor and the translatory actuator module and between the microprocessor and the force sensor; and

5 a motor driver that converts a control signal from the microprocessor into a driving signal for the translatory actuator module.

10 5. Care equipment comprising a translatory actuator unit that includes a translatory actuator module that moves an object straightly;

a force sensor that detects a load applied to the translatory actuator module; and

15 a servo control module that controls a speed, a position and/or output power of the translatory actuator module,

wherein the translatory actuator module, the force sensor and the servo control module are integrally configured,

the servo control module has

20 two-way network means for receiving a control command concerning the speed, the position and/or the output power from a network, and transmitting information of the speed, the position and/or the output power to the network,

25 control means for controlling the speed, the position and/or the output power, and

self-diagnosis means for confirming safety and

detecting an abnormal state based on detected information of the speed, the position, the load, and/or an electric current of the translatory actuator module.